THERMAL REMEDIATION services inc.

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June 19, 2003

Mr. Steve Faryan
USEPA
77 West Jackson Boulevard
Chicago, IL 60604-3590

Subject: ERH Start-Up Testing and System Alterations

Dear Mr. Faryan:

The purpose of this letter is to present a brief description of the startup activities and system alterations that occurred during the week of June 9, 2003.

On June 10 and 11, 2003, Thermal Remediation Services (Thermal) was on-site and a complete system check was performed on all electrical resistive heating (ERH) equipment, cables, electrodes, and associated mechanical devices. During this period no electricity was applied to the electrode field.

On June 12, 2003 a final site inspection was performed and the exclusion zone was cleared of all nonessential personnel. Power was applied to the electrode field at 09:30 at a voltage of approximately 75 volts to neutral. A current survey and step-and-touch potential survey was taken immediately.

Amperage measurements were taken in every field cable. The initial cable sizes used were 350 MCM cable to the electrical field junction boxes and 2/0 cable is installed from the field junction to each electrode. During the current survey one 2/0 cable installed to electrode E11 had an amperage measurement above the rated measurement for a 2/0 cable and three other electrodes (B12, C13, and D14) had amperage measurements within approximately 20% of the cable capacity. All of the amperages measured on the 350 MCM cables were well below the current rating of the cable. Once the current survey was completed the electricity to the electrode field was shut off and the 2/0 cables were replaced with higher capacity 350 MCM cables at electrodes E11 and B12. The 2/0 cables at electrodes C13 and D14 will be replaced with 350 MCM cables prior to startup on June 24, 2003.

An extensive step-and-touch potential survey was completed in conjunction with the current survey. In general, voltage potentials were measured at each cable splice, at every above ground metal object, at every well vault existing in the electrode field, the site plenum and surrounding unpaved areas, the existing fence, and electrical junction boxes. A 15 volt potential (OSHA safety limit is 50 volts) was measured at two locations between the newly installed electrical junction box on the security

system posts to the newly installed steel protection posts adjacent to the security system posts. The reason for the potential was due to the security system being wired to the facility ground. All other potential measurements were below 1 volt. The 15 volt potential was remedied by electrically connecting the two points together causing them to be at the same potential. Once the remedy was performed, the electrical potential measured at these locations was approximately 0.3 volt.

How much power Full?

Once the above alterations were completed, electricity was applied to the ERH electrode field at 14:00. The ERH system was allowed to operate for approximately two hours. During the second operational period another current survey was completed as well as several step-and-touch potential surveys. All measurements taken during the second operational phase were well below all accepted safety levels.

The practices, measurements, results, and remedies of the start-up testing are typical of ERH systems and no out of the ordinary conditions were found during testing. Therefore, Thermal is completely confident in the safety of the ERH system at Area 2.

Please feel free to call me at (206) 283-2572 if you have any questions or require additional clarification regarding this matter.

Sincerely,
Thermal Remediation Services

Paul V. Bianco, PE
Project Manager

CC:

Mr. Arthur Bourlard, The Lockformer Company
Mr. Ron St. John, Clayton Group Services, Inc.
Mr. Jeff Pope, Clayton Group Services, Inc.
Mr. Jerry Wolf, Thermal Remediation Services
Mr. Tom Powell, Thermal Remediation Services